

# Notice of Allowability

Application No.

10/763,655

Examiner

Michael A. Lyons

Applicant(s)

CHOU ET AL

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 11 April 2006.
2. ☒ The allowed claim(s) is/are 1-9.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

Gregory J. Tooley, Jr.  
Supervisory Patent Examiner

## **DETAILED ACTION**

### ***Allowable Subject Matter***

**Claims 1-9 are allowed in view of the prior art.**

The following is an examiner's statement of reasons for allowance:

As for claim 1, the prior art of record, taken either alone or in combination, fails to disclose or render obvious a method for measuring an absorption coefficient and a reduced scattering coefficient of a multiple scattering medium comprising the outputting of a coherent light beam including orthogonally polarized wave components each having a respective frequency, the creation of a reference beam and a measurement beam that is projected to the scattering medium, the detection and conversion of an optical interference signal of the reference beam and the measurement beam into heterodyne interference electrical signals, the comparison of the signals to obtain amplitude attenuation and phase delay of the signal beam due to the scattering medium, and the use of the comparison to infer both the reduced scattering coefficient and the absorption coefficient of the medium at the location where the medium is penetrated by the measurement beam, in combination with the rest of the limitations of the above claim.

As for claim 9, the prior art of record, taken either alone or in combination, fails to disclose or render obvious a method of imaging a multiple scattering medium, the method comprising obtaining an inferred reduced scattering coefficient and absorption coefficient as disclosed above with regards to claim 1 and recording the information, along with the location at which the measurement light beam penetrated the medium, moving the location of the penetration of the measurement beam multiple times and repeating the method to obtain the reduced scattering coefficient and absorption coefficient for each location, and, according to the

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positions of penetration, reconstructing the distribution of the reduced scattering coefficients and absorption coefficients of the positions, in combination with the rest of the limitations of the above claims.

With further regard to the above claims, please see the applicants' response, dated April 11, 2006, to the previous Office Action, along with the affidavit filed under 37 CFR 1.132.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael A. Lyons whose telephone number is 571-272-2420. The examiner can normally be reached on Monday through Friday.

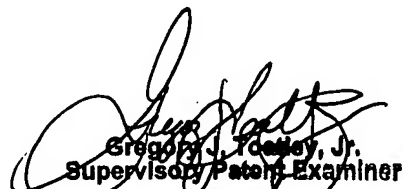
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley can be reached on 571-272-2800 ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MAL

April 20, 2006

  
Gregory J. Tolley, Jr.  
Supervisor, Patent Examiner  
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